

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A telecommunications method, comprising:

defining one or more system components as corresponding distributed modules using a module definition language;

defining one or more function parameters for said one or more system components, the function parameters defining behavior of each system component in the system and a message and log structure for recording and analyzing the history of message traversal through various other ones of said one or more system components;

implementing in each of said one or more system components the function defined for the respective system component; and

logging in each of said one or more system components a result of said implementing, [[;]] the module definition language including an MDLScript tag ~~having attributes as set forth below:~~

Attribute	Description
Name	Name of the module. If not specified, the default name is constructed from the hostname and the port number
Port	Port number on which the module will be listening for new messages. Each module requires a different port number.
Threads	Number of threads that will be used in this module. Current version supports ThreadPooling, where the Operating System allocates the threads

2. (currently amended) A telecommunications method in accordance with claim 1, wherein said defining said one or more system components and said one or more function parameters are implemented on a plurality of system components ~~systems~~.

3. (original) A telecommunications method in accordance with claim 1, wherein said one or more function parameters comprise CPU delay.

4. (original) A telecommunications method in accordance with claim 1, wherein said one or more function parameters comprise CPU load.

5. (currently amended) A telecommunications system, comprising:

a network;

a plurality of ~~one or more~~ network devices coupled to said network; and

a modeling system for modeling functions of said network and said one or more network devices, said modeling system adapted to be distributed among said one or more network devices using modules defining real-time system components, at least two of said plurality of network devices including said modeling system, said modules defining behavior of each real-time system component in the telecommunications system and a message and log structure for recording an analyzing the history of message traversal through various other system components.[[;]] the modules defined in a module definition language including an MDLScript tag ~~having attributes as set forth below:~~

Attribute	Description
Name	Name of the module. If not specified, the default name is constructed from the hostname and the port number
Port	Port number on which the module will be listening for new messages. Each module requires a different port number.
Threads	Number of threads that will be used in this module. Current version supports ThreadPooling, where the Operating System allocates the threads

6. (currently amended) A telecommunications system in accordance with claim 5, said ~~modeling system adapted to be distributed among~~ a plurality of ~~said one or more~~ network devices includes said modeling system.

7. (original) A telecommunications system, in accordance with claim 6, said modeling system adapted to model one or more system components using an XML-based model definition language.

8. (original) A telecommunications system in accordance with claim 7, said modeling system including one or more modules, each module defining a system component.

9. (original) A telecommunications system in accordance with claim 7, wherein said modeling system models system delay.

10. (original) A telecommunications system in accordance with claim 7, wherein said modeling system models system load.

11. (currently amended) A telecommunications system, comprising:

a network;

a plurality of ~~one or more~~ network devices coupled to said network;

a Real Time Communications protocol (RTC) module receiving messages from and passing messages to said plurality of network devices;

a Virtual Assistant (VA) module processing received messages and providing response messages;

an Assistant Engine (AE) module passing messages between said RTC module and said VA module; and

a modeling system for modeling functions of said network and said one or more network devices, said modeling system defining modules adapted to be distributed among said one or more network devices, at least two of said plurality of network devices including said modeling system, said modeling system including an XML-based modeling language for defining said modules, each including models of one or more system components and defining behavior of each system component in the telecommunications system and a message and log structure for recording an analyzing the history of message traversal through various other system components,[[;]] the modules defined in a module definition language including an MDLScript tag ~~having attributes as set forth below:~~

Attribute	Description
Name	Name of the module. If not specified, the default name is constructed from the hostname and the port number
Port	Port number on which the module will be listening for new messages. Each module requires a different port number.
Threads	Number of threads that will be used in this module. Current version supports ThreadPooling, where the Operating System allocates the threads

12. (original) A telecommunications system in accordance with claim 11, further including a directory defining a name and parameters of other modules being modeled by said system which a given module needs to work with.

13. (original) A telecommunications system in accordance with claim 12 said modules including a loop module for modeling a non-real-time component.

14. (original) A telecommunications system in accordance with claim 13, one or more modules defining a CPU load.

15. (original) A telecommunications system in accordance with claim 13, one or more modules defining a system delay.

16. (new) A telecommunications system in accordance with claim 11, wherein at least one of said plurality of network devices is a SIP device, said telecommunications system further comprising:

a SIP Invite generator generating SIP INVITE messages at a rate specified in the module definition and sending generated SIP INVITE messages to said RTC module, said RTC module introducing load and delay for every SIP INVITE message as specified in the module definition and passing the SIP INVITE message to said AE module, said AE module passing the SIP INVITE message to said VA module, said VA module returning the SIP INVITE message to the SIP INVITE generator through said AE module and said RTC module, said SIP INVITE

generator logging returned messages in a log, the log containing returned message time stamps that can be analyzed to measure the delay characteristics;

a web server module; and

a database module, said web sever module and said database module consuming CPU/Memory resources at a rate and amount specified in said module definition.

17. (new) A telecommunications system in accordance with claim 5, wherein at least one of said plurality of network devices is a SIP device, said telecommunications system, further comprising:

a SIP Invite generator generating SIP INVITE messages at a rate specified in the module definition;

a Real Time Communications protocol (RTC) module receiving said SIP INVITE messages from a said SIP Invite generator, said RTC module introducing load and delay for every SIP INVITE message as specified in the module definition;

an Assistant Engine (AE) module receiving said SIP INVITE messages from said RTC module;

a Virtual Assistant (VA) module receiving said SIP INVITE messages from said AE module and processing received said SIP INVITE messages, said VA module returning the SIP INVITE message to the SIP INVITE generator through said AE module and said RTC module, said SIP INVITE generator logging returned messages in a log, the log containing returned message time stamps;

a web server module; and

a database module, said web sever module and said database module consuming CPU/Memory resources at a rate and amount specified in said module definition.